

ABSTRACT

A cooking thermometer having an audible alarm includes a skewer having a segment of a shape memory alloy wire disposed therein. The upper end of the shape memory alloy wire is secured to a connecting rod which is operatively associated with a cam assembly. When the skewer and hence the shape memory alloy wire is heated, the shape memory alloy commences a phase transformation from martensite to austenite and contracts. The cam assembly serves to translate the up and down motion of the connecting rod into rotational motion which is transmitted through a spur gear assembly to a pivoting pointer positionable over a temperature indicia plate. A helical spring assembly is positioned on the top of the connecting rod which exerts stress on the connecting rod and shape memory alloy wire during the phase transformation to extend the temperature transformation range and improve and optimize the linearity of the transition.

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